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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/667,079

09/18/2003

Yung-Chao Tseng

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EXAMINER

TOPGYAL, GELEK W

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

05/13/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/667,079	Applicant(s) TSENG ET AL.	
	Examiner GELEK TOPGYAL	Art Unit 2621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,10,12-18,20 and 30-36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-18,20,26-28 and 30 is/are allowed.
- 6) ☒ Claim(s) 1-6,9,10 and 31-35 is/are rejected.
- 7) ☒ Claim(s) 7 and 36 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/18/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 5/2/2008 has been entered.

Response to Arguments

2. Applicant's arguments with respect to claims 1-7, 9-10 and 31-36 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-2, 5-6, 9-10, 31 and 33-35** are rejected under 35 U.S.C. 102(e) as being anticipated by Hughes, Jr. et al. (US 6,633,725).

Regarding claim 1, 31, 34, Hughes, Jr. et al. teaches method for enhancing the image resolution, wherein the method is applied to a high-resolution image data carrier

Art Unit: 2621

for storing or playing a high-resolution image at least twice the standard image resolution, the method comprising the following steps:

defining a video-audio data format and a plurality of user data formats on the high-resolution image data carrier (Fig. 1 and col. 3, lines 60-65);

decomposing the high-resolution image into a plurality of primary images data of standard image resolution (Fig. 1 and col. 4, lines 1+ teaches wherein a high-resolution source image is decomposed into base and enhancement layers);

encoding at least one primary image data to form a disc playable image data (Fig. 1, compressors 106 and 108 and col. 4, lines 55+ teaches wherein compressors compress the base and enhancement layers so that they are stored on the DVD);

storing one set of the primary image data into the video-audio data format of the image data carrier and storing another primary image data set separately into the plural of user data formats (Fig. 1 and col. 4 – col. 5 teaches wherein the base layer and the enhancement layers are stored separately in primary and secondary angle storages areas of a DVD);

playing back one set of the primary image data from the video-audio data format by any playback apparatus is low resolution is required (col. 5, line 60 - col.6 line 18);

and

combining one set of the primary image data from the video-audio data format and another primary image data from the user data formats to form a combined playable image data and playing back the combined playable image data by a specific playback apparatus if high resolution is required (col. 6, line 55 – col. 7, line 42);

wherein the specific playback apparatus comprises:

a readout unit for reading out the plural user data formats on the high-resolution image data carrier (col. 5, line 60 - col.6 line 18 and col. 6, line 55 – col. 7, line 42); and

an image-combining unit for acquiring the primary image data at a same position of the user data format to combine and restore the high-resolution image (col. 6, line 55 – col. 7, line 42, wherein the base layer data and the enhancement layer data are combined to restore the one full high-resolution source image).

Claim 2 is rejected for the same reason as discussed above in claim 1, since Hughes, Jr. teaches that the high-resolution source images is stored on a DVD.

Claim 5 is rejected for the same reasons as discussed in claim 1 above, wherein the base layers and the enhancement layers are store in the primary and secondary viewing angle storage areas of the DVD.

Regarding claims 6, 9 and 10, Hughes, Jr. teaches the limitations as discussed in claim 1 above, and furthermore, the video recorded in the disc of Hughes, Jr. is that of a DVD format. Therefore, it is inherent that the recorded video is recorded in the format of MPEG. Furthermore, VCD and SVCD record video in the format of MPEG as well.

Claim 33 is rejected for the same reasons as discussed in claim 5 above.

Claim 35 is rejected for the same reasons as discussed in claims 6, 9 and 10.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2621

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 3-4 and 32** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hughes, Jr. et al. (US 6,633,725) in view of De Bruijne (US 6,944,392).

Regarding claims 3 and 4, the system of Hughes, Jr. teaches the claimed as discussed in claim 1 above, however, fails to teach wherein the image data carrier is a VCD or a SVCD medium.

In analogous art, De Bruijne teaches in col. 2, lines 15-23 of the ability to store video into any type of medium, including VCD or a SVCD.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the ability to record the plurality of video of the system of Hughes, Jr. into VCDs or SVCDs as taught by De Bruijne so that the different medium formats can be utilized.

Claim 32 is rejected for the same reasons as discussed in claims 2-4 above.

Allowable Subject Matter

7. **Claims 12-18, 20, 26-28 and 30** are allowed.

8. **Claim 7 and 36** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Art Unit: 2621

9. The following is an examiner's statement of reasons for allowance: **Independent claim 12** recites the uniquely distinct features for "calculating an average of the pixels at the same positions in the plural primary image data for forming a secondary image data; encoding the secondary image data to form a disc playable image data; storing the secondary image data into the video-audio data format of the high-resolution image data carrier; playing back the secondary image data from the video-audio data format by any playback apparatus if standard resolution is required; and combining and restoring secondary image data from the video-audio data formats and another primary image data from the user data formats to form the high-resolution image and playable by a specific playback apparatus if high resolution is required; wherein the specific playback apparatus comprises: a readout unit for reading out the plural user data formats on the high-resolution image data carrier; and an image-combining unit for acquiring the secondary image data and the primary image data at a same position of the user data format to combine and restore the high-resolution image"; similarly, **Independent claim 26** recites the uniquely distinct features for "an image operation unit, for calculating an average value of pixels at the same position from plural primary image data for forming secondary image data; an image-encoding unit utilizing an image compression technique to encode the primary and secondary image data and form a playable image data; an image storage unit, separately storing the plural primary image data into plural user data format of the image data carrier; and storing the secondary image data in a video-audio data format of the image data carrier; an image-combining unit for acquiring the secondary image data from the video-audio data format

Art Unit: 2621

and the primary image data from the user data format to form a combined playable image data; and a playing unit for playing back one set of the primary image data from the video-audio data format if low resolution is required and playing back the combined playable image data if high resolution is required". The closest prior art Nonweiler (US 5,483,296), Hughes, Jr. et al. (US 6,633,725), Oshima et al. (US 6,573,819), Oami (US 6,363,119) and Honjo (US 4,963,991) disclose systems that allow for storage and rendering of high-resolution images using division of the frame sequence or the creation of base and enhancement layers, either singularly or in combination, fail to anticipate or render the above limitations obvious.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to GELEK TOPGYAL whose telephone number is (571)272-8891. The examiner can normally be reached on 8:30am -5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thai Tran can be reached on 571-272-7382. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Gelek Topgyal/
Examiner, Art Unit 2621

/Thai Tran/
Supervisory Patent Examiner, Art Unit 2621